

REMARKS

Claims 12-22 are pending. Claim 22 is amended. The basis for the amendment can be found, for example, at page 11, line 3 to page 12, line 5, page 21, lines 1-5 (PNA2, PNA3, and PNA4) and at page 22, lines 4-14 (PNA6).

This response addresses the issues presented in the Official Action dated December 29, 2005, the Communication dated May 12, 2006, and the Communication dated September 12, 2006. The Office Action restricts Applicants to one of two groups of claims. These groups are shown in the table below.

Group	Claims	Description Provided in the Office Action
I	12-19 and 22	composition of a nucleic acid mimic of formula I, classified in class 514, subclass 02
II	20 and 21	nucleic acid mimic of formula IIIa, classified in class 530, subclass 350

Applicants elect Group I with traverse. According to MPEP § 803, there are two criteria that both must be met for a proper requirement for restriction between among inventions that are alleged to be patentably distinct:

- (A) the inventions must be independent (see MPEP § 802.01, § 806.04, §

- 808.01) or distinct as claimed (see MPEP § 806.05 to § 806.05(i)); and
- (B) there must be a serious burden on the examiner if restriction is not required (MPEP § 803.02, § 806.04(a) to § 806.04(i), § 808.01(a), and § 808.02).

The claims of Groups I and II, however, are not independent and distinct, nor will searching them together impose a serious burden on the examiner. The structures recited in claims 20 and 21, for example, are within the scope of the chemical structure recited in claim 22. As such, examination of Group I will necessarily include review of materials having the scope of claim 20 and 21. Accordingly, there is no basis for the proposed restriction.¹

The Office Action also requires that Applicants elect a single disclosed species. In making this requirement, the Office Action alleges that the claims are directed to patentably distinct species of nucleic acid mimics. Applicants question the requirement for a species election. M.P.E.P. § 802.01 defines "distinct" species as those that "ARE PATENTABLE (novel and unobvious) OVER EACH OTHER." (emphasis original). See also, M.P.E.P. § 806.04(h) and 808.01(a). Accordingly, a conclusion that each of the nucleic acid mimic species are patentably distinct from one another would establish a standard for patentability to be employed throughout prosecution of this patent application (including in any assessment of the non-obviousness of the claimed subject matter in view of the prior art) whereby species that, for

¹ Applicants also note that claims 20 and 21 are not duplicates, as alleged in the Office Action (page 2). These claims differ in at least the group that links the "L" group to the molecule backbone.

example, differ only with respect to a single difference in a variable in the generic structure must be found unobvious in view of one another.

Applicants reassert the designation of Sequence ID No. 5 as the designated species. The Communication of September 12, 2006 objects to this designation as allegedly outside of the claim scope. The Examiner's position seems to result from a misunderstanding of the specification. The Examiner is referred to page 20 (especially lines 8 and 9 and the last 2 lines on page 20) where Applicants, as their own lexicographer, define PNAs. As best understood, the Examiner is reading the sequences on page 21 as oligonucleotides, not PNAs. Such a reading is contrary to Applicant's use of both of these terms as defined on page 20 of the specification. In the specification, T and C and A and G are used in conjunction with the terminology "PNA" to identify the base sequence of a PNA molecule not the base sequence of an oligonucleotide sequence that the Examiner's interpretation would require.

The Examiner is also mistaken with respect to his assertion that support is lacking because PNA3 "requires at least two amino acid backbones present ("n" is at least 2)." See page 2 of the September 12, 2006 Communication. In arriving at this conclusion, the Examiner again appears to be reading PNA3 as an oligonucleotide sequence, not a PNA sequence. Claim 22, the lone independent claim in the provisionally selected Group, does require n to be at least 2 and PNA3 does satisfy this criteria. Specifically, PNA3 is a PNA 10 mer (i.e., n = 10). Thus, PNA3 is within the claim scope.

The Examiner also alleges that the inclusion of a lysine group into claim 22 is not

DOCKET NO.: ISIS-2447
Application No.: 09/142,326
Office Action Dated: September 12, 2006

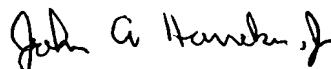
PATENT

supported by the specification. This position is untenable. The amendment finds ample support in original claims 20 and 21 as well as page 11, line 3 to page 12, line 5, page 21, lines 1-5, and page 22, lines 4-14. Each of these disclosures relate to PNAs containing lysine conjugates at the appropriate position.

Finally, the Communication of May 12, 2006 objects to the Sequence Listing as not being consistent with the conjugates in the specification. The new sequence listing submitted in response to that Communication is believed to resolve this issue. This information is not resubmitted herein.

Applicants believe the foregoing constitutes a complete response to the Office Action and subsequent Communications. Further, Applicants submit that all pending claims are in condition for ready allowance. An early Office Action to that effect is, therefore, earnestly solicited.

Respectfully submitted,



John A. Harrelson, Jr., PhD
Registration No.: 42,637

Date: October 12, 2006

Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia, PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439